Technische Universität Dresden (TUD), as a University of Excellence, is one of the leading and most dynamic research institutions in the country. Founded in 1828, today it is a globally oriented, regionally anchored top university as it focuses on the grand challenges of the 21st century. It develops innovative solutions for the world's most pressing issues. In research and academic programs, the university unites the natural and engineering sciences with the humanities, social sciences, and medicine. This wide range of disciplines is a special feature, facilitating interdisciplinarity and transfer of science to society. As a modern employer, it offers attractive working conditions to all employees in teaching, research, technology, and administration. The goal is to promote and develop their individual abilities while empowering everyone to reach their full potential. TUD embodies a university culture that is characterized by cosmopolitanism, mutual appreciation, thriving innovation, and active participation. For TUD, diversity is an essential feature and a quality criterion of an excellent university. Accordingly, we welcome all applicants who would like to commit themselves, their achievements, and productivity to the success of the whole institution.

The Boysen-TU Dresden Research Training Group for young researchers from Engineering, Social Sciences, Arts, and Humanities, co-financed by the Friedrich and Elisabeth Boysen Foundation and the Technische Universität Dresden, is offering a doctoral scholarship 1 from January 1, 2023, for a maximum of 3 years, subject to available funding. The interdisciplinary Research Training Group, in what is its fourth generation, is conducting research on the overarching topic Hydrogen Economy - Strategic element of a future GreenGas deal. It consists of four clusters. Cluster F: Impact H2 green combines five sub-projects (SP). We are looking for an interested and committed PhD student (m/f/x) to work on the topic of SP F3: Cumulative effects of the expansion of renewable energies on biodiversity. The Chair of Computational Landscape Ecology at the Faculty of Environmental Sciences at TU Dresden is responsible for the supervision. The interdisciplinary supervision takes place in the common rooms of the Research Training Group.

Abstract: In this subproject, spatially-explicit models are developed to predict and evaluate cumulative ecological effects of the expansion of renewable energies. This includes effects on biodiversity, e.g. on planning-relevant species (groups), and on ecosystem properties, e.g. structural and functional connectivity. To this end, spatio-temporal characteristics as well as inter- and intra-annual ecosystem dynamics are to be taken into account and assessed by means of remote sensing, which can then serve as the basis for assessing and forecasting cumulative ecological impacts. This innovative assessment approach is intended to significantly improve the planning of new renewable energy plants and make it possible to take ecological impacts into account in the best possible way – without standing in the way of the overall expansion targets for renewable energies. Close cooperation with the other sub-projects on the basis of a reference energy park in southern Germany plays an important role here, so that concrete expansion concepts and scenarios can be taken into account.

Applicants are expected to have an above-average academic degree in landscape ecology, (bio)geography, environmental sciences, or a related field with a clear link to biodiversity research and/or environmental planning, as well as a high degree of willingness to engage in interdisciplinary work and research. We are looking forward to a new colleague who would like to contribute his/her own ideas and initiatives to the research project and enjoys working in an open-minded, international, and creative team.

Accepting the scholarship obliges your presence in the research group's offices in Dresden on three fixed core days per week. Participation in the college's teaching program is compulsory (24 ETCS in 3 years).

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1 The amount of the scholarship is based on the basic amount according to DFG criteria: https://www.dfg.de/foerderung/programme/einzelfoerderung/forschungsstipendien/stipendienrechner/
TUD strives to employ more women in academia and research. We therefore expressly encourage women to apply. The University is a certified family-friendly university and offers a Dual Career Service. We welcome applications from candidates with disabilities. If multiple candidates prove to be equally qualified, those with disabilities or with equivalent status pursuant to the German Social Code IX (SGB IX) will receive priority for employment.

Please send your compelling application including a letter of motivation, curriculum vitae, copies of academic certificates or other relevant qualifications (language certificates, further training), and a max. 10-page sample text (e.g. final thesis, term paper, or publication) until November 21, 2022 (stamped arrival date of the university central mail service applies) with the subject “SP F3: Cumulative effects of the expansion of renewable energies on biodiversity”, preferably via the SecureMail Portal of the TU Dresden https://securemail.tu-dresden.de as one PDF document to anna.martius@tu-dresden.de. Alternatively, applications can also be sent to the following address: TU Dresden, Boysen-TU Dresden-Graduiertenkolleg, Frau Dr. Anna Martius, Helmholtzstr. 10, 01069 Dresden, Germany. Please submit copies only, as your application will not be returned to you. Expenses incurred in attending interviews cannot be reimbursed.

Reference to data protection: Your data protection rights, the purpose for which your data will be processed, as well as further information about data protection is available to you on the website: https://tu-dresden.de/karriere/datenschutzhinweis